CAS 1163-19-5

Substance name 2,2',3,3',4,4',5,5',6,6'-Decabromodiphenyl ether (also known as BDE-209)

Toxicity

BDE -209 is the primary congener found in Deca-BDE. Thyroid and liver appear to be the most sensitive tissues to toxicity of Deca-BDE in animal studies. In 2008, EPA determined that Deca-BDE had "suggestive evidence of carcinogenic potential" in humans.[1] This is based on liver tumors in rats and male mice, and thyroid gland follicular cell hyperplasia and thyroid tumors in male mice in oral studies with Deca-BDE.[1,2] Rats and mice exposed to Deca-BDE in their early postnatal period, were observed to have neurodevelopmental effects as they matured.[3,4,5,6] In the environment, BDE-209 is likely to degrade into less-brominated, more toxic BDEs.[7]

Exposure

Deca BDE is listed as a Persistent, Bioaccumulative and Toxic (PBT) chemical under Washington State's PBT rule (WAC 173-333-320).[7] This chemical is widely used as a flame retardant in high impact poylstyrene and other polymers, in coatings and adhesive systems such as the back coatings for carpets, and in non-clothing textiles.[1,7] It is a high production volume chemical that has not been reported directly in children's products but has been found in indoor air and dust and in biomonitoring studies.[1,7,8,9]

References

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